

involving a marked and clear-cut variation in a single character. Intermediate shades have not yet been found, nor have both colors been seen on the same plant.

The occurrence of this supposed single-character variation indicates that *Tiarella* may be desirable for breeding experiments. The further fact that the two forms are distinguishable by their pollen (which follows a reduction division in the mother cells) suggests that they may be used in cytological and Mendelian studies.

The experience of Dr. Coville with *Epigaea*¹ suggests that with a little care in regard to a few factors many of the wild plants could easily be brought under cultivation and exceptionally good specimens obtained. Moreover there is a sheet of *Tiarella* in the Gray Herbarium bearing a note dated May 11, '86, addressed to Dr. Gray, and signed by M. A. C. Livermore, in which it is stated that the specimens are from a bed of *Tiarella* which originally came from Wilton, New Hampshire. This indicates that the plant had been successfully cultivated in the garden. So there is good reason to expect *Tiarella* to succeed in experimental cultures.

TUFTS COLLEGE, MASSACHUSETTS.

A NEW VARIETY OF RUBUS CANADENSIS.

W. H. BLANCHARD.

RUBUS CANADENSIS L. VAR. **septemfoliolatus**, n. var. *Rubus nigrobaccus fruticosus erectus glaber modice elatus, caule tereti aculeis multis brevibus armato, foliis atrovirentibus latis proximis, foliolo terminali saepe in foliola tria sejuncto, deinde foliis 7-foliolatis.*

Turiones novi. Caules 9–12 dm. alti, glabri, subteretes, aculeis multis brevibus validis 2 mm. longis, circa 15 ad unciam, armati. Folia 5-foliolata, magna, glabra, atrovirentia; foliola lata breve acuminata, contigua et incubantia, pari inferiore sessili, pari laterali breve petiolulato, foliolo terminali in petiolulo 2.5 cm. longo, latissimo, cordato, saepe lobato vel partito, aut minus saepe in foliola tria diviso.

Turiones veteres. Inflorescentiae plus minusve cymosae aut interdum breve racemosae in ramulis crassis saepe frondosis 7–12 cm.

¹ Coville, Frederick V. The use of acid soil for raising seedlings of the Mayflower, *Epigaea repens*. Science, N. S., Vol. XXXIII, No. 853, pp. 711–712.

longis. Fructus subglobosi, laxi, magnitudine mediocres. Plantae haud perfecundae.

A glabrous, moderate-sized bush blackberry with dark green foliage, round stem armed with numerous short prickles, and broad close leaves, the middle leaflet frequently divided into three separate leaflets making them 7-foliolate.

New canes. Stems 3 to 4 feet (9 to 12 dm.) high, glabrous, nearly terete, armed with numerous short strong prickles $\frac{1}{2}$ inch (2 mm.) long, about 15 to an inch of stem. Leaves large, broad, dark green, glabrous; leaflets broad, short-pointed, overlapping, lower pair sessile, side pair on short petiolules, middle leaflet on a petiolule 1 inch (2.5 cm.) long, very broad, cordate, often lobed or parted, frequently divided into three leaflets.

Old canes. Inflorescence irregularly cymose or sometimes short-racemose on stout often leafy fruit-branches 3 to 6 inches (7 to 15 cm.) long. Fruit a somewhat globose loose berry of moderate size. Not very productive.

In Newfoundland. Kane Valley five miles west of St. John's in a brook meadow; Norris Arm along the railroad sparingly for a mile; Grand Falls near the paper mill.

The dark green glabrous foliage of this blackberry and the high latitude in which it grows at once indicate that it is a form of *R. canadensis* L., and it is no more strongly armed than is frequent in the far north. It is a larger plant than is to be expected in such a latitude and such surroundings, and it differs greatly from all other forms of *R. canadensis* north or south in the form of its leaves, which resemble in shape and size those of *R. recurvans* Blanchard, having wide leaflets and short petiolules. The cordate middle leaflet is very noticeable and is more so when it is lobed or parted on one side or on both sides, but it is very striking when it is divided into three leaflets as it frequently is.

The plant is normally 5-foliolate; probably one-fourth of the canes, possibly a much greater proportion have some 7-foliolate leaves. This variation in the middle leaflet occurs, though rarely, in some other species, and is generally considered to be a freak, but here it is so common that it may well be considered as a distinctive character. No constant characters can be discovered in the growth on the old canes, and this is the case generally in the extreme northern range of this species. A cymose form of inflorescence is most often seen, and all kinds of oddities occur, but the typical raceme is not found.

I spent the last ten days of August, 1909, in botanizing in Newfoundland, crossing the island twice, a distance of 1100 miles, and explored

as much as the time at my disposal would allow at four places — Bay of Islands on or near the west coast, St. John's on the extreme east coast, and at Norris Arm and Grand Falls between, and I found this blackberry at all of these places except Bay of Islands. But on July 10, 1910, Professors Fernald and Wiegand found at Goose Pond in the valley of the Humber River, seventy miles east of Bay of Islands what appears to be the same form having large flowers with wide petals, but the new canes were not sufficiently advanced to show the expected division of the broad middle leaflet into three.

Blackberries as I expected were not common and the inhabitants seemed to have never seen them. In two cases where persons were sure no such plants existed, I showed them the plants were close by — in one case a few rods from where a farmer was hoeing and in another close to a woman's house.

WESTMINSTER, VERMONT.

POPULUS VIRGINIANA FOUGER.

IVAR TIDESTROM.

IN Maryland and Virginia there appear to be two distinct forms of black poplar which are at present referred to *Populus deltoides*. These are a form that is usually cultivated as *P. deltoides* Marsh. and *P. virginiana* Fougér. The former is commonly cultivated but up to the present time I have not been able to find any trees in the wild state, although it appears as if some about Newark, Delaware, might be so. At any rate the identity of *Populus deltoides* Marsh. is uncertain. According to Marshall¹ the tree grows naturally in Carolina and Florida, but his description seems to apply to the trees in Delaware. His description appears to have been taken from "Bartram's Catalogue" and he gives due credit to the latter author. The description reads in part as follows: "The leaves are large, generally nearly triangular, toothed or indented with sharp and deep serrations, of a shining full green on their upper surface, but somewhat lighter or hoary underneath; standing upon long slender foot-stalks, and generally restless or in motion."

¹ *Arbustum Americanum*, p. 106.